



231, rue James Watt, Tecnosud  
66100 PERPIGNAN - France

Tel +33 (0)4 68 83 28 26 – Fax +33 (0)4 68 83 19 67

Internet : [www.carmelec.fr](http://www.carmelec.fr)

Email : [contact@carmelec.fr](mailto:contact@carmelec.fr)

# Pollux

## Notice d'utilisation et de maintenance





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## PREAMBLE

All the CARMELEC team thanks you for your acquisition and hopes that the information you will find in this document will help you to well understand the whole functions of your POLLUX.

If nevertheless you need complementary information, our team is entirely at your service.

## PRESENTATION

Pollux is a radiometer-luxmeter allowing the simultaneous measure of UVA and visible light with a unique probe.

It meets all electromagnetic compatibility standards applicable to such items in heavy industries.

## DESCRIPTION

### Description of parts

Pollux is designed as an easy-to-use, low weighted unit.

It comprises a reinforced ABS plastic case which leads to its sturdiness. A cover gives an easy means to replace the battery.

Pollux is powered by a 9volt battery (6F22; PP63; 6LR61 types). Polarity is automatically detected.

### Probe

The probe is in a secondary housing, connected to the unit by a one meter cable.

This unique probe allows the measure of the visible light and UVA. The white circle is the sensitive zone of the probe.



## On / Off

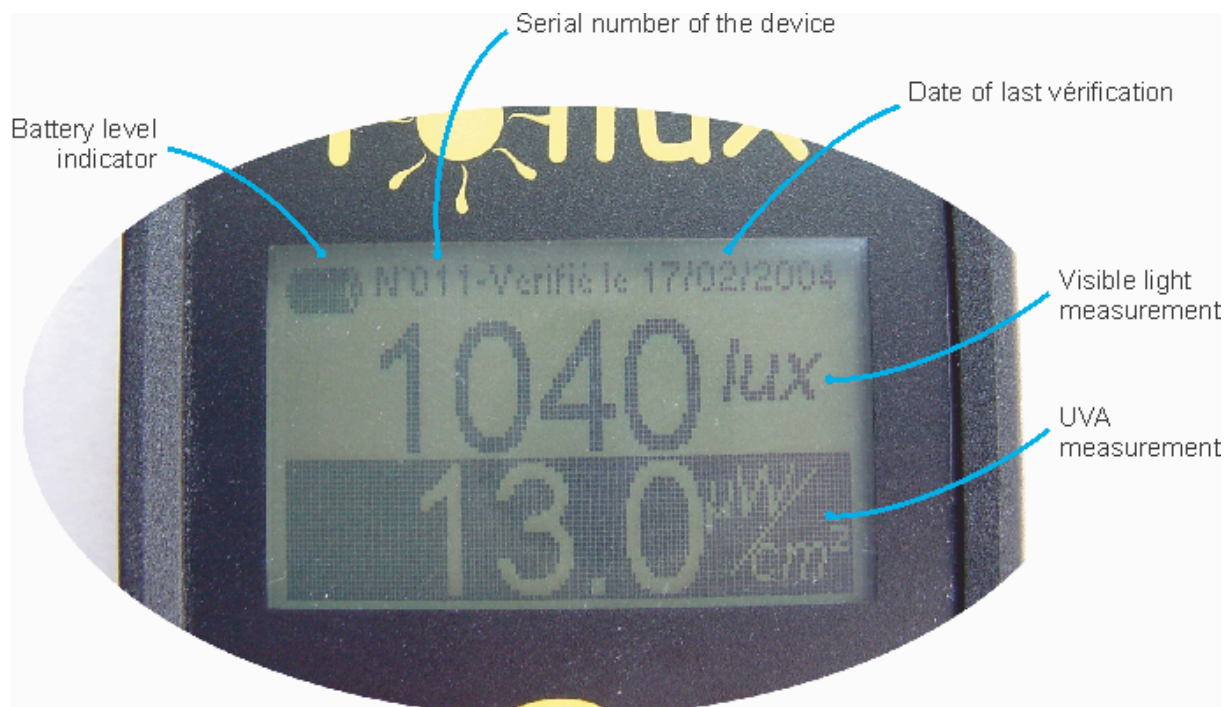
Pressing the unique button switches your Pollux on. An initial screen appears with the company logo then Pollux turns to measuring mode and is ready for use. Press the button again to turn it off.

## Display

The graphic LCD display has an automatic back-lit when the visible light is less than 50 lux.

Visible light unit is the lux (lux).

UV A unit is micro-Watt by square centimeter ( $\mu\text{W}/\text{cm}^2$ ).



## Battery level indicator

Battery level may be checked thanks to the indicator top left of the screen.

When the indicator flashes, battery must be replaced. If it is not replaced, should it is too weak to make reliable measurements. Pollux automatically switches off while displaying: "Low battery".



## **Measurement system**

Pollux comes with a smart measurement processing system.

It comes as a time sliding averaging along an algorithm of measurement supervisor. This algorithm constantly checks that the displayed figures are coherent with the sensor capabilities.

If an error is detected, due to the time averaging, the sliding average table is erased. A transient display is shown for a brief period (less than 0.5second), then average is again on, leading to display stability.

To alert user, while the system is coming back to the sliding averaging, a measurement unit flashes.

## **MEASUREMENTS WITH POLLUX**

To measure with Pollux, turn it on and drive the sensible zone of the probe to the light source to measure (re: probe paragraph on page 3). Pollux indicates you that the measure is stable when the measurement unit symbol stops flashing.



## FOR A BETTER SERVICE

### Periodic verification

We strongly recommended carrying out a yearly calibration in a test laboratory.

### Pollux cleaning

Use water for the front face. **Never use alcohol, any solvent, or degreasing agent.**

Probe and the other case surfaces may be cleaned with denatured alcohol.

### Cleaning of the probe

For the cleaning of the probe, use water. **Never use alcohol, any solvent or degreasing agent.**

The intern cleaning of the probe is possible but it has to be done with a lot of care.

### ATTENTION:

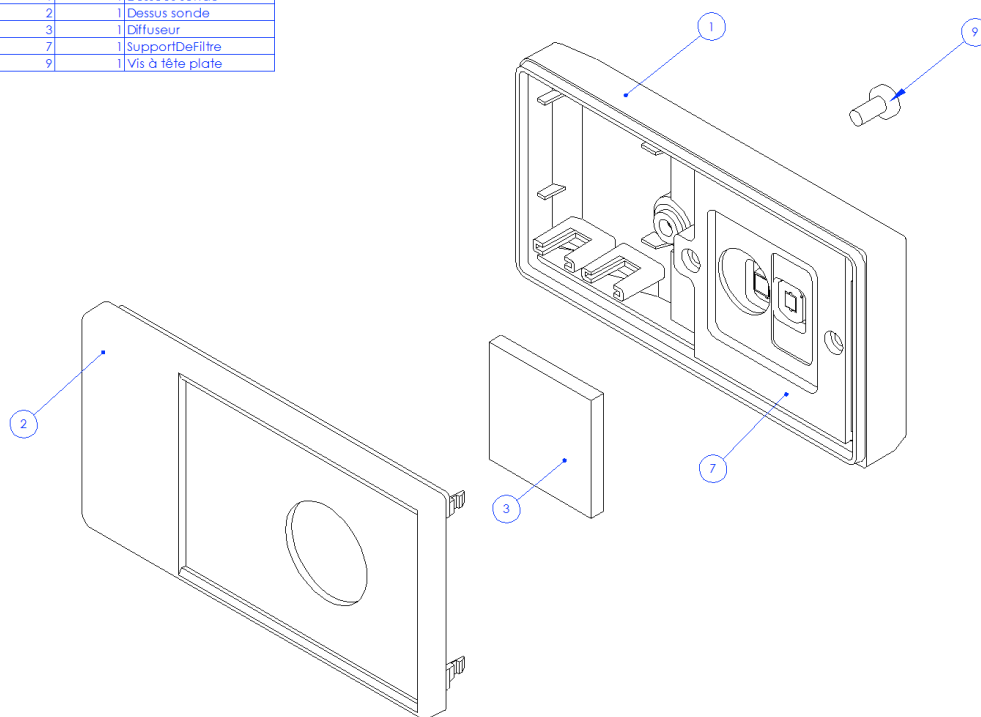
**This kind of operation is likely to modify the behaviour of your Pollux. After opening of the probe, the unit could not be regarded any more as attached to the national standards of measurement.**

**The use of other products than water for the cleaning of the probe most probably risks damaging it irretrievably.**

### Modus operandi

- 1 Withdraw the screw back of the lower part of the case.
- 2 Withdraw slowly the cover.
- 3 Withdraw the opal diffuser.
- 4 **Rinse with water** (and only with water) the top of the case and the diffuser.
- 5 Dry the top of the case and the diffuser.
- 6 Reassemble the diffuser. **The opal part of the diffuser must be placed at the top** (towards the exterior).
- 7 Screw up the case.

No. ARTICLE	QUANTITÉ	No. PIÈCE
1	1	Dessous sonde
2	1	Dessus sonde
3	1	Diffuseur
7	1	Support De Filtre
9	1	Vis à tête plate





## TECHNICAL FEATURES

### Detection features

- Sensors : Silicium sensors linearised through filters
- Measurement Unit : Visible light : lux (lux)  
UVA : micro-watt per square centimeter ( $\mu\text{W}/\text{cm}^2$ )
- Measuring range : Visible light : 0,1 lux to 6000 lux  
UVA : 0,1  $\mu\text{W}/\text{cm}^2$  to 20 000 $\mu\text{W}/\text{cm}^2$
- Resolutions : Visible light : 0,1 lux  
UVA : 1  $\mu\text{W}/\text{cm}^2$

### Mechanical and environmental characteristics

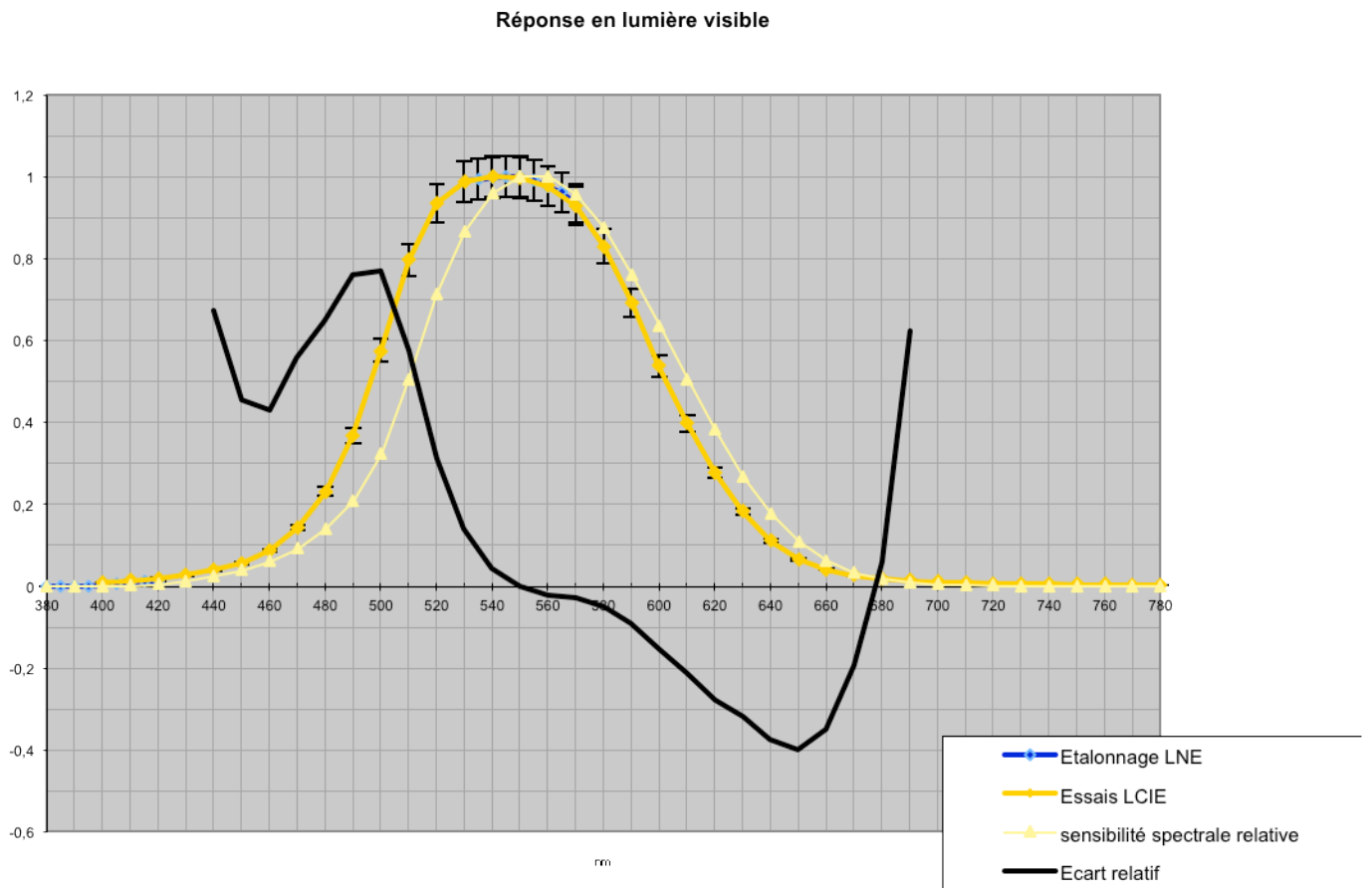
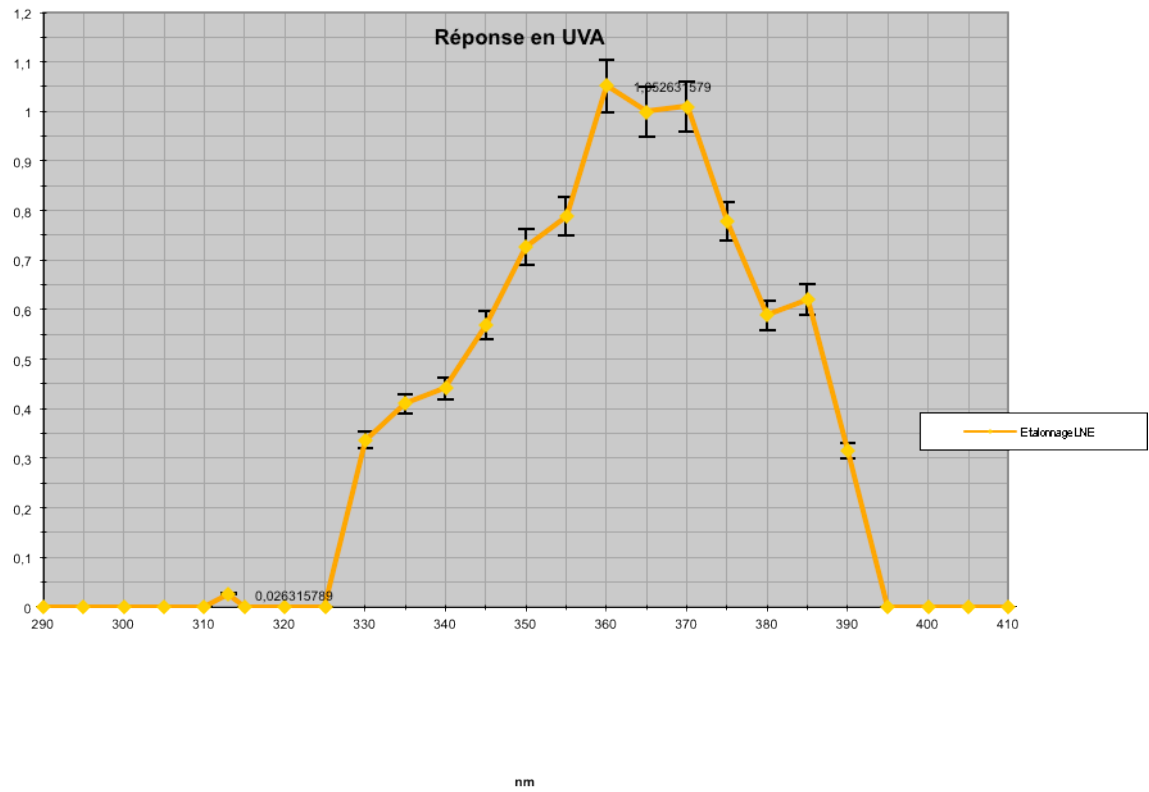
- Case dimensions : 120 mm x 65 mm x 22 mm (probe not included)
- Probe dimensions : 85 mm x 45 mm x 16 mm
- Weight : 200 g including battery
- Case material : Reinforced ABS plastic
- Moisture / dust tightness : IP 64

### Electrical features

- Electromagnetic compatibility : meets EN 61326 Ed.97 + A1 Ed.98 + A2 Ed.01 requirements
- Battery : 9 V battery (PP3/ 6F22 / 6LR61)
- Current drain : 11,6 mA
- Life range : 43 hours (without back-lit)



## Response curves





## **AFTER SALES SERVICE**

The Carmelec after sales is at your disposition; do not hesitate to contact us for additional information.

Ph : +33 (0) 4 68 83 28 26

Fax : +33 (0) 4 68 83 19 67

email : [contact@carmelec.fr](mailto:contact@carmelec.fr)